AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the

application:

LISTING OF CLAIMS:

1.   (Original) An apparatus for reconstructing a high frequency part of a first signal,

the apparatus comprising:

a frequency inverter which inverts a frequency of an input signal to generate a frequency-

inverted input signal;

a band-pass filter which filters a high frequency part of the frequency-inverted input

signal to generate a filtered signal;

a converter which shifts a frequency of the filtered signal so as not to generate an aliasing

of the input signal and the filtered signal to generate a frequency-shifted signal; and

an adder which adds the frequency-shifted signal to the input signal.

2.   (Original) The apparatus of claim 1, wherein the input signal comprises an audio

signal.

3.   (Original) The apparatus of claim 1, wherein the frequency inverter inverts the

frequency of the input signal by multiplying the input signal by an external sine signal and an

external cosine signal, the external sine signal and the external cosine signal having a first

frequency substantially equivalent to a cut-off frequency of the input signal.

4.   (Original) The apparatus of claim 1, wherein the converter shifts the frequency of the filtered signal by multiplying the filtered signal by an external sine signal and an external cosine signal, the external sine signal and the external cosine signal having a first frequency substantially equivalent to a cut-off frequency of the input signal.

5.   (currently amended): An apparatus for reconstructing a high frequency part of a first signal, the apparatus comprising:

a first generator which generates a cosine signal;

a first multiplier which multiplies an input signal by the cosine signal to generate a first multiplied signal;

a first low-pass filter which low-pass filters the first multiplied signal to generate a first low-pass filtered signal; and

a second multiplier which multiplies the first low-pass filtered signal by the cosine signal to generate a second multiplied signal;

a second generator which generates a sine signal;

a third multiplier which multiplies the input signal by the sine signal to generate a third multiplied signal;

a second low-pass filter which low-pass filters the third multiplied signal to generate a second low-pass filtered signal;

a third generator which generates a negative sine signal;

a fourth multiplier which multiplies the second low-pass filtered signal by the negative sine signal to generate a fourth multiplied signal;

a summation unit which sums the second multiplied signal obtained by the second

multiplier and the fourth multiplied signal obtained by the fourth multiplier to generate a

summed signal; and

> an adder which adds the summed signal to the input signal.

6.   (canceled).

7.   (currently amended): The apparatus of ~~claim 6~~claim 5, wherein the signal

comprises an audio signal.

8.   (Original) A method of reconstructing a high frequency part of a first signal, the

method comprising:

> inverting a frequency of an input signal to generate a frequency-inverted input signal;

> filtering a high frequency part of the frequency-inverted input signal to generate a filtered

signal;

> shifting a frequency of the filtered signal so as not to generate aliasing of the input signal

and the filtered signal to generate a frequency-shifted signal; and

> adding the frequency-shifted signal to the input signal.

9.   (Original) The method of claim 8, wherein the input signal comprises an audio

signal.

10.   (Original) The method of claim 8, wherein the operation of inverting inverts the

frequency of the input signal by multiplying the input signal by an external sine signal and an

external cosine signal, the external sine and external cosine signals having a first frequency

substantially equivalent to a cut-off frequency of the input signal.

11.   (Original) The method of claim 8, wherein the operation of shifting step shifts the

frequency of the filtered signal by multiplying the filtered signal by an external sine signal and

an external cosine signal, the external sine and the external cosine signals having a first

frequency substantially equivalent to a cut-off frequency of the input signal.

12.   (currently amended): A method of reconstructing a high frequency part of a first

signal, the method comprising:

generating a cosine signal;

first multiplying an input signal by the cosine signal to generate a first multiplied signal;

first low-pass filtering the first multiplied signal to generate a first low-pass filtered signal; and

second multiplying the first low-pass filtered signal by a cosine signal to generate a

second multiplied signal;

generating a sine signal;

third multiplying the input signal by the sine signal to generate a third multiplied signal;

second low-pass filtering the third multiplied signal to generate a second low-pass filtered

signal;

generating a negative sine signal;

fourth multiplying the second low-pass filtered signal by the negative sine signal to

generate a fourth multiplied signal;

summing the second multiplied signal and the fourth multiplied signal to generate a

summed signal; and

adding the summed signal to the input signal.

13.   (canceled).

14.   (currently amended): The method of ~~claim 13~~claim 12, wherein the input signal comprises an audio signal.

15.   (Original) A computer-readable recording medium on which a computer program for executing the method of claim 8 is recorded.

16.   (Original) A computer-readable recording medium on which a computer program for executing the method of claim 12 is recorded.

17.   (new): The apparatus of claim 1, wherein the sine signal is input directly to the third multiplier from an output of the second generator, second low-pass filtered signal is input directly to the fourth multiplier from an output of the second low-pass filter, and the negative sine signal is input directly to the fourth multiplier from an output of the third generator.